



COLMAN'S RURAL WORLD

DEVOTED TO AGRICULTURE HORTICULTURE HORSES CATTLE SHEEP SWINE ETC.

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COLMAN'S RURAL WORLD

NORMAN J. COLMAN, EDITOR.
LEVI GRUBB, BUSINESS MAN.

Published every Wednesday, in Chemical building, corner of Eighth and Olive streets, St. Louis, Mo., at one dollar per year. Eastern office, Chalmers D. Colman, 430 Temple Court, New York City. Advertisers will find the RURAL WORLD the best advertising medium of its class in the United States. Address all letters to COLMAN'S RURAL WORLD, Chemical Building, St. Louis, Mo.

While the RURAL WORLD is published at one dollar a year, it has temporarily allowed old subscribers to send actually NEW OR TRIAL subscribers with their own subscriptions at fifty cents a year, in order to largely increase the circulation and influence of the paper. This price is less than the cost of the white paper, presswork, folding, wrapping, mailing and prepaying the postage, saying nothing of any other of the large expenses of maintaining offices, paying salaries and conducting such a paper in a large city. Renewals, unless accompanied by one or more NEW subscribers must be at one dollar a year. All names are dropped as soon as subscriptions expire. The month named on the address tag, pasted on each issue, shows the month subscriptions expire, and renewals should be made two or three weeks before, so that names shall not drop out of list. It is gratifying to the proprietor to be able to state, in his half century's experience in conducting this paper, it has never enjoyed the patronage and prosperity it now does. Its circulation is increasing in a wonderful degree, and its advertising patrons, many of whom have used its columns for a quarter or a third of a century, are more than pleased with results. Let all our friends unite and press forward in extending its sphere of influence. It will do for others what it is doing for you, so get others to join the great RURAL WORLD army and receive the same benefit.

MISSOURI AT THE PAN-AMERICAN EXPOSITION.

The Missouri Board of Commissioners for the Pan-American Exposition appointed by Governor Dockery, met last week and organized. E. B. Garver, Grant City, was elected president; R. M. Yost, St. Louis, secretary; and C. C. Bell, Booneville, treasurer. Mr. Bell is to have charge of the agricultural exhibit. A Nelson of Lebanon, has been employed by the Board of Commissioners as superintendent of the fruit exhibit. The commissioners are in Buffalo this week arranging for space for exhibits of Missouri products and interests. On their return an office will be opened in St. Louis and the work of preparing the exhibits will be pushed vigorously. The exposition opens May 1, thus giving but one month of time in which to prepare and install the exhibits, if they are to be ready at the opening. It will take some lively hustling to accomplish the task. Fortunately, thanks to Mr. Nelson, several hundred barrels of selected apples of last year's crop are now in cold storage and available for a fruit exhibit. This will enable the commissioners to make a creditable showing of one of the most important of Missouri's diversified agricultural resources. We are not as yet informed regarding the plans for other agricultural exhibits.

TIME.

"The flood of time is setting on. We stand upon its brink."
When it will be necessary for the farmer to make the best possible use of those portions we call minutes, hours and days if the season's labor is to be crowned with full harvests. How to make the best of one's time is a problem that is not considered as carefully as it should be by many. In many cases there is a waste of time by downright idling. This is not necessarily due to laziness, but may be the effect, in part, of the consciousness that, in some particulars, results follow only "the inaudible and noiseless foot of time." The farmer is, therefore, obliged to wait the coming of the seasons of planting, cultivating and harvesting; he knows that while he sleeps his corn is growing and that when he goes to town his apple trees do not cease their labor for him. It is not so with the mechanic, the tradesman or the professional man; they must attend to business or business stops.
Yet, "Do not love life, then do not squander time for that is the stuff life is made of," and the farmer must use the portion of the "stuff" that has been given him to good advantage if bountiful harvests are to be expected. We do not mean to suggest that the average farmer should get up in the morning earlier and go to bed later—we believe that, as a rule, he now makes his spring and summer working days too long—but we are inclined to the opinion, this based on experience as a farmer boy, a hired man on a farm and an employer of farm hands, that the minutes and hours of a shorter day can be much better utilized than is done on the average farm. As a rule, farmers do not study how to save time by saving unnecessary steps, by having gates so hung that they will open and close quickly, by having tools put in repair while time was not so important, by having tools in good condition, by having seed that is sure to grow so as to save replanting, by having fuel for the house ready and in countless other ways. Labor unions and competitors have compelled men in other industrial pursuits to study the problem of how to turn the minutes and seconds to profitable account, while the workman's task is growing lighter.

AGRICULTURAL ADVANCEMENT.

Editor RURAL WORLD: In the great advancement this country is making the rural free mail delivery is one of the most important features and is being rapidly extended all over the country. At the end of the present fiscal year, on July 1, there will be established 4,300 rural free delivery routes. Within the next year this number will be doubled, making in all 8,600 routes. At this rate, in a few years, the service will be extended to almost every rural district. What a grand thing this will be for the farmers of this country! With the facilities for getting the daily news and the vast number of periodicals and publications pertaining to every industry and profession, there is indeed but little excuse for ignorance and apathy.

All professions, callings, creeds, orders and classes have their journals to advocate their cause and advance their interests. The farmers, too, are not lacking in this matter. They have many papers which uphold their interests and aid in spreading the light. Some of these, it is true, are printed on poor paper, with inferior type and commonplace articles, while others are just the reverse, with excellent, clear type, good subject matter and the fine quality of paper on which they are printed is of the very best. Such a paper is the RURAL WORLD. Of the 17 papers now coming to our home, there is none that will half way compare to COLMAN'S RURAL WORLD in quality of type and neatness of paper, clearness of print and character of matter printed. It should be in the home of each and every farmer of whatever class in this state; nor should its influence be confined to Missouri alone, but its circulation should be extended to every state in the union, which would be vastly benefited by its influence.

At this writing the prospect for fruit in this locality, Northwest Missouri, is fair. Wheat is looking well. Spring birds are making their appearance, indicative of winter's disappearance. Some of my neighbors have their gardens made. I prefer waiting until the maple buds have greater development. The time of year is now upon us when the condition of our public highways, without the intervention of kind Providence, will be impassable.

J. Y. POWELL.

Livingston Co., Mo.

SHREDDER CORN FODDER.

Editor RURAL WORLD: You asked me to write my experiences with shredded fodder. As yet it is rather limited, but as I have had nearly 40 years of experience in handling corn and fodder, and that in considerable quantities, and three years with the silo, I will venture a few thoughts. Last fall was very dry, so that I experienced great difficulty in getting the corn husked, and when husked half the fodder was broken up so fine that it was wasted on the ground. The corn shelled very badly when thrown in piles on the ground, wasting from one-half to a gallon to the shock. Early in December I had an opportunity to witness the work of a corn husker and shredder with a cyclone stacker.

I bought a new one about the middle of December and began work. I had between 500 and 600 shocks, 16 hills square, 266 hills to the shock, that turned out on an average a barrel (five bushels) of shelled corn to the shock. We used a 12-horse threshing engine for power. We could shuck and husk about 10 shocks an hour. One little boy, one 12 years old, the other 14, filled this to the comb of the roof by turning the elbow on the end of the cyclone pipe wherever they wanted the fodder delivered. The machine shelled and sacked about 200 bushels of corn in husking about 2,400 bushels of corn, shelled measure.

It requires two men to run the shredder, one to feed and one to look after the machine, adjust the sack for shells and corn, the elevator leading to the corn bin, bed, etc., and of course a freeman with the engine. I hauled my shock corn one-fourth to one-half mile. It took four to five teams and as many hands, with an extra loader in the field to bring in the corn, and one man and team and two wagons to crib the corn. The labor of moving the corn shock is very little greater than moving the fodder off the field, after it is husked, and then everything is saved. The drier the fodder the better work the machine does and the less power it takes.

Should my life be spared next year I will put my corn in small shocks, from one-fourth to one-third the usual size, so

it will cure out sooner and I can have the dry days of last of October and first of November to work. Then while the ground is dry there will be no dirt in the shelled corn as there is after the ground is wet and frozen.

I was showing Mr. J. S. Payne a bunch of calves where I filled an old building with fodder on one side and left room for the calves on the other. "Why," says he, "you fed these calves last December; aren't they in fine fix? No trouble to get that manure out, no more trouble to feed than with hay in the barn. It beats a hay carrier all hollow in moving it away; you blow it just where you want it, if it is 25 feet high."

I have an old family mare that has heaves. I haven't heard her cough this winter. The fodder must be sheltered after shredding, as it fills in all the water that falls and the damage is considerable if exposed.

For the average farmer and the climate of Missouri I regard shredded fodder as a great food saver, taking away the disadvantages of winter feeding of fodder and in a large degree taking the place of timothy hay. J. L. ERWIN.

Callaway Co., Mo.

PEBBLES FROM THE POTOMAC.

Editor RURAL WORLD: Says United States Labor Commissioner Carroll D. Wright: "Added by machinery, 4,500,000 men turn out a product which would require the labor of nearly 40,000,000 men if produced by hand. In America the advantage derived from machinery is about twice as great as in Europe, so that the actual population of the United States is equal in productive power to 150,000,000 Europeans. With labor saving machinery one generation of men can do the work of four or five generations of hand-workers."

DAIRY PRODUCTS.—Mr. R. A. Pearson of the Agricultural Department has gone to Porto Rico with instructions to establish agencies there for American dairy products. He has taken samples along with him and will remain long enough to observe their introduction. The department will endeavor to establish markets for this industry in that section wherever practicable.

SPRING.—A stroll through the woods to-day reminds us that the reign of king winter is nearing dissolution; the sullen and gloomy monarch, with his crown aglitter with jewels of ice and snow so lately in evidence, is reluctantly handing over the reins of government to the queen of seasons—gentle spring. Flowers and ferns have decorated the hills and dales in the past and evince a disposition this year to outdo all previous records in welcoming their most gracious patron. From the hedges nature's orchestra pours forth its entrancing strains of music. Here and there an oak retains a few leaves, brown and withered—leaves so lately imprinted with a thousand tints of autumnal glory; waters rush and roar over the stony path of the eager brook, fearing no more the frowning brow of the late taskmaster or his whip of icy lashes. In viewing these pleasing prospects the poet's fancy runs riot. Basking in the genial glow of Aurora's brightest rays, we hear nature proclaiming in no uncertain voice that the old has passed away and behold, all things are new!

THE FARM.—That the agricultural interests of the United States have kept step with the march of progress is self-evident. In value, our agricultural output, which amounted to little over \$100,000,000 a hundred years ago, has increased to the enormous sum of \$3,000,000,000 a year, while the value of the farms is approximately \$15,000,000,000 and steadily increasing in value. The settled area of our country represents 2,000,000 square miles as against 200,000 in 1790. From these statistics we conclude that the development of the agricultural resources of the United States has indeed been marvelous, to say the least. Our fair fields are the garden spots of the globe; our grains reach the hungry in every part of the universe; our fruits perfume the atmosphere of the cottage and the castle in lands beyond the sea; our cotton and wool clothe the multitude in every clime; our forests supply building material for all mankind.

Truly the sphere of activity in the farmers' field is practically unlimited. To him the hungry world must ever look for its food supply; the naked world for its supply of clothing—cotton and wool. In the progress of the world's advancement the farmer has been an important factor in the equation of events. In the time of war, like Cincinnatus of old, a farmer—Washington—left his pleasant home on the banks of the Potomac and led the children of the new world within whose breasts blazed the unquenchable flame of liberty, on to a victory unparalleled in the annals of ancient or modern history. These men were principally farmers, "farmers who fired the shot that was heard around the world," as an eminent writer has put it. And downward till the present day the farm has furnished a large percentage of contestants on the field of battle. The long list of farmers who have served their country from the humblest capacity to chief executive is evidence per se that he who reads the open book of nature is capable of imparting his wisdom for the benefit of his fellow countrymen.

DISTRICT SCHOOLS.—Schools of the country districts are often inaccessible during some portions of the winter months owing to the deplorable condition of the roads, which, unfortunately, retard the ambitious scholar from absorbing as much knowledge as he naturally would under more favorable circumstances. These obstacles, however, do not daunt the spirit of the average American youth, for, despite these obstacles, he progresses to an astonishing degree. The wonderful lack of interest, too often manifested by grown up people in making the district school room pleasant, is a grievous error. Make the school room bright and inviting. Let some substantial citizen contribute a set of encyclopaedia and, believe me, he will never regret the gift. Other contributions can be made as the demands suggest. A well equipped school is an invaluable auxiliary in the education of the young. Another important feature in conducting a successful school is in securing a competent and reliable instructor. Pay a fair price, living wages. A good teacher is cheap at any price; and inexperienced and inefficient teacher expensive at the lowest price.

Richelle's aphorism that: "In the hands of men mightily great The pen is mightier than the sword,"

is exceedingly applicable in this connection. In the hands of a good teacher the pen clears the battlefield of life of many of the objectionable and perplexing problems that are incident thereto.

The late ex-President Harrison condensed a vast amount of common sense in these few words: "One dollar voted by the people of any school district for the support of common schools is worth \$10 given out at the treasury of the United States." The remarks of our journalistic friend—Dyke—in recent articles appertaining to the subject discussed, contained numerous admirable suggestions worthy of perpetuating.

We should like to see in every district school a well selected library. Doubtless each pupil would gladly give a book or two, which would contribute materially toward the intellectual development of the individual who, with proper diligence, perused the literature placed at his disposal.

We have never taught school and do not write these reflections in the spirit of a lecture, but rather as a friendly chat with the intelligent reader. We have attended several district schools in our day and from our recollections of their numerous disadvantages—and occasional visits since—cannot refrain from accentuating upon a theme so important to the American citizen. A good school system is an essential pre-requisite in training the growing generation to the high ideal of a perfect citizenship in this, the greatest republic ever established.

S. F. GILLESPIE.

Washington, D. C., March 19, 1901.

A HIRED MAN OF 50 YEARS AGO.

Editor RURAL WORLD: The "hired man" seems to be the subject of marked attention in late issues of the RURAL WORLD. As four successive years of my life in boyhood and early manhood were lived as a hired man on farms in Illinois, it seems that I should give some of my experiences in this line. Since being a hired man, I have employed a great many hired men, white and colored, of all ages, from 12 up to 40 years old. In the beginning permit me to say that great changes have taken place in regard to the manner of hiring men. Forty-nine years ago (1852) when I began my four years of service, boys and men alike lived with the family of the employer. In those days there was no laborer's tenant house on the farm. Three-fourths of the farmers of that date would be called poor men now. Farm work was then done on a small scale, compared with that of these days. The hired man then put in 12 and 13 hours a day. He did not know anything about ten hours a day and factory whistles. It was the style to do your own whistling and hold on to the plow from 4 o'clock in the morning until sundown.

The first year of my service I was 16 years old. I was employed by a farmer who had been a hired man himself in his young days. I received \$8 per month and was to have my laundry done by the family, but as his good wife kicked, he allowed me \$2 for the laundry work, giving me for the six months, from the first day of March until the first day of September, \$50.

How much of that \$50 do you hired men suppose I spent in the six months? Only \$10. When my time was out, my employer did not have the money to pay me the balance due. I took his note for \$40 at 10 per cent interest, which remained unpaid for a year. It is presumed that the hired man who may read this article, would like to know how I managed to meet my wants for six months with \$10. Now, I have come to a point that I will every hired man reader to remember. In the first place, I did not chew tobacco, smoke cigars or cigarettes (cigarettes were unknown then); I did not go to town to while away Saturday afternoons in the saloons or joints, for I never tasted whisky in a saloon. I was checked with the hired man who may read this article on Sunday, with such other apparel for Sunday as was worn by the boys of those days. Of course, I had good clothes when I began work. My Sunday suit was placed neatly in a trunk. I wore a white shirt three or four Sundays, and then it was not much soiled.

When my time was up with my first employer I hired to a widow to pick apples for 50 cents a day, until school opened, which was about the first of December. The money I earned while in her employ bought the books and clothes sufficient for school. I boarded with this lady, paying for my board by working evenings, mornings and Saturdays. Douglas Co., Kas. UNCLE AMOS. (To be continued.)

NOTES FROM AN OHIO FARM.

Editor RURAL WORLD: Our paper has a valuable correspondent in C. A. Bird. In the issue of March 13 he writes a good paper; the part where he speaks of ashes for the berry patch especially attracted my attention. I note that he does not practice the same method of seeding oats that we do. It is not necessary on his rich, loose soil, while on our limestone, clay loam we must work up the soil well or have no crop. Ashes will no doubt be of great benefit to his berry and fruit crops, while we get absolutely no benefit from the use of ashes on any crop. In fact they have lessened the yield of wheat and potatoes for me more than once. I have used hundreds of bushels of hardwood ashes from fireplaces, stove and mills, and I would not again pay 10c a load and haul them 100 yards.

Hold on, here; as I turned the paper I saw Mr. Bird's comment on the note by Mr. Bird, as well as on the article by Mr. Schnell on the third page. I would almost wager a peanut that Mr. Schnell is on a limestone soil, and the facts as we all present them are worthy of close attention. We spend a great deal of money for fertilizers and much of it is spent blindly. Of course a good farmer ought—blindly, I say "ought"—to make the nitrogen necessary to the growth of the crops of the farm, from the crops of the farm. There are some exceptions to this, as in the case of the gardener and trucker, who usually keep little or no stock; but the man with 100 acres and eight or ten head of horses and cattle needs but no nitrogen.

Thousands of dollars are still spent every year by farmers for lime, and not one-fourth part of the lime used is one cent's benefit; with me it is valueless, as I have proved by burning two large kilns by applying the lime from them in varying quantities, leaving check strips unlimed.

We used to buy our phosphoric acid in bone only and were very particular to see the bone in it. Then we began to try boneblack, then acid rock, carefully looking at the analysis printed on the sack to see that the phosphoric acid was "soluble"; after a while we learned that the "reverted" acid was as valuable as the "soluble," and now we have it from undisputed authority that the finely ground phosphoric rock is just as valuable to the farmer as that which has been treated with sulphuric acid. The only thing we need know is the total phosphoric acid contained in the goods we buy without reference to its being "soluble," "reverted," "available," or "insoluble."

No one combination of chemicals can suit all soils and all crops, any more than any and all diseases; the most valuable part of any farm is the plot set apart for experimentation, and the best results the farmer gets from any work he does is from that spent in making farm experiments.

Friend Dyke, we are all sorry that you are laid up; your letters are always helpful. I know what paralysis is; my father was stricken with progressive paralysis on December 23, 1896, and lived nearly a year. His case was hopeless from the start by reason of his age—70 years—and his frail form and feeble constitution. Yours being only on one side, it is in a great majority of cases curable, and we hope with the return of warm weather that you will be able to get out on the farm; in the meantime, "do write" and "fear not."

I have just had a valuable (?) present made me by my—your—Uncle Samuel, who lives at Washington, D. C., and I deputize Mr. Gillespie to personally tender my thanks to my genial friend, Assistant Secretary Brigham, for them. They are seeds, garden seeds, 14 packages, 4 dupes, of "selected varieties," cabbage, lettuce, watermelon, radish, etc. Our seeds were bought of a regular seedsmen and are known varieties, not "selected," as we want to know what kind of stuff we are going to raise. Last year I had sent me five packages of sweet corn, half of it came up and what did was an inferior sort.

March 18, 7 p. m., and we are all tired, but happy in the consciousness of a good day's work well done. Three of my boys, two tobacco tenant and myself, raked and sowed 250 square yards of tobacco bed and 50 more acres us out. The oldest boy I liked an acre of rolling land in the morning and this afternoon I sowed our first barley, and he harrowed it in. Then he broke 40 rods of land for extra early potatoes. These will be planted to-morrow, if it does not rain. We get best results from planting very early, and of early maturing varieties. Our favorite is early Ohio, and next Rose for main crop. Hebron does well.

Freeman did well the first two years we had it, then played out. Triumph, Hunt and other extra earlies are all inferior to

Ohio in yield and quantity—with us.

Don't fail to provide plenty of truck patches and get everything planted in time. Our garden and truck make half our living and well—the hens make nearly the other half. We also know people who never think it pays to fool with garden stuff and "rich like." I saw one to-day; says he: "Plenty of time to plant 'taters; light of the moon in April is a good time," and I know that he did not raise five bushels of potatoes last year, and year before last he only had nine bushels. I have not much patience with "moon folks." About ten years ago I rented a man an acre for potatoes; he plowed the land in March and in spite of the fact that the last days of the month and the first days of April were ideal days to plant he waited for the April moon to "get right." I had nearly 60 bushels of potatoes on a quarter of an acre; he had 44 on a full acre. I do not suppose that it is "right" for the moon to get "full," any more than it is for a man to do the same, but as the moon is only "full" a little while each month I assume that it is "right" the rest of the time.

Brown Co., O. C. D. LYON.

COW PEAS.

Editor RURAL WORLD: I have been requested to give my experience in raising stock peas. I have found it best to sow them about June 10, or later. I used to plow my ground and then drill them in. One 30-acre field I drilled in with a two-horse corn planter, and then straddled every row, thus making the rows about 18 inches apart. When the peas were six or eight inches high, I ran a single shovel plow between the rows to cultivate the peas. But it doesn't pay for the trouble, besides it leaves the ground rough. My best crops have been those that I sowed broadcast, sowing about a bushel and a half to the acre, on fresh plowed ground, before harrowing. Then I harrowed and ran a good, heavy drag over the ground. I like to sow right after the plow, or as nearly so as possible.

I sowed some as late as the first of July last year and made a fine crop. I cut them with a mowing machine when properly ripe, and follow with a sulky rake, and put them up in small and rather high shocks. You may think that they would mold when put up so green, but they will not, when put up this way. You don't lose the fodder or leaves, as you do to let them lie in the swath a day. I have let them lie for two days in order to get them properly cured. Now I just keep cutting and putting them up in shocks until I get my crop all cut. I have been a week or more, and have had fairly good weather, my first cutting has cured out the nicest, brightest, green peas you ever saw. Stack in small, high, round stacks, for a rick or a large stack will either mold or heat, so the seed will not grow.

We depend largely down here in "Egypt" on our pea crop, as we have lots of this land, and our clover winter kills so easily. We can count on the peas for feed for the land as clover. If you want to sow a piece of land to grass, there is no crop that leaves the land in as good a condition as a rather late crop of peas. Just sow the seed on the stubble and harrow thoroughly.

When sowing peas try to sow them in a field where you can turn in the hogs after stacking, as the peas shatter, and then a great many pods will be left in the cutting and handling. You will find the peas about as corn for the hogs. For good feed add one bushel of ground peas to two of crushed corn, and 50 pounds of wheat bran. I would rather feed the hay after it is threshed than before. It is not so rich, and is all torn up like shredded fodder. When the hay is fed before threshing the stock will run over it, and pull it out of the manger hunting for the pods, just as an old cow will hunt for corn after she has been fed fodder corn and a few times. I would much rather feed them separate.

Idlewood, Ill. J. H.

ADAIR CO. (MO.) NOTES.

Editor RURAL WORLD: We have had the most pleasant winter I believe I ever experienced; no cold weather until February, and then only down to zero by the thermometer at Pleasant Home. Some report eight degrees below, but I think they must have looked with their eyes shut. Fruit of all kinds promises well. A part of the peach buds are killed, but more than enough are left. We will spray everything in the fruit line this year and hereafter, as we are convinced it is the only way to grow perfect fruit.

Stock has wintered well with us and will be in shape to make a good growth this summer. I notice some stock through the country that has been only roughed through; that is no credit to the owner and surely will be of no profit. I believe it pays to feed well, especially young stock. I have contracted our spring lambs at 5c first 10 days of June. They weigh from 30 to 40 pounds now and are making rapid growth. I feed corn and oats crushed fine. It is wonderful how much of such feed a lamb two months old will get away with.

To-day is like spring and the birds are letting us know that they have got back home. Pleasant Home is a great place for the birds, as we count them our

friends and never molest, but rather encourage, them to stay with us (this doesn't apply to the English sparrow). The White and Buff Rock chickens are making their appearance with us. I expect to be able to have something fine to offer RURAL WORLD readers next fall, and also make some of the other fellows hustle for the prizes at the shows next fall and winter. Mrs. May would pull my ears if she knew I were writing this, as she is running the poultry business here. I desire to say that her advertisement in the RURAL WORLD brings lots of inquiries from a number of states. If I may be allowed to say it, we never have had a dissatisfied customer or at least have never let us know of it at any rate.

March 18—I have been putting bug catchers on our apple tree to-day and find we are too late for good results, as the canker worm beetle is at work depositing her eggs in the forks of the trees, under the bark or in any crevice she may find. We commenced some weeks ago, but on account of too cold weather to work barehanded had to give it up. We find from one to six and eight of the beetles under the screen where put on first. The job ought to be done in the fall, however, for best results. What we fail to get this way will be given a dose of poison as soon as hatched out. They are going to ruin the orchards here if people don't destroy them. It is warm to-day and some are sowing oats. J. E. MAY.

Pleasant Home Fruit Farm.

LETTER BOX.

CUT WORMS.—Will Geo. D. Bowers tell us how to fight the cut worms? Are they the same as the army worms? We had them in some locations on the coast last year. MRS. M. ELLA CARPENTER. Whatcom Co., Wash.

HOW TO TAN SKINS.—Will you or some of your many readers tell me through your columns a good way to tan hides of animals with hair on and also without, so I can use same for lacing, and greatly oblige an admiring reader of your interesting and instructive paper? Fawcett, Okl. T.

A method practiced by the writer when a boy is as follows: If the hair, say of a squirrel or the wool of a lamb skin, was to be removed the skin was spread out in a shallow vessel, flesh side down, and covered with unleached wood ashes to the depth of an inch or more, and these saturated with water. In a few days the hair would readily come out. The skin was then taken out of the ashes and thoroughly cleaned of the hair, washed, scraped, stretched and tacked to a board and rubbed thoroughly with a mixture of pulverized alum and salt. The hair and wool of skins can be removed by smearing the flesh side with a paste of lime—1 but one skin, smear and fold one-half on the other, flesh side in contact; if more, place them two and two, flesh side together.

The tanning (more properly tawing, for tanning is only accomplished by the aid of tannic acid) can also be accomplished, after the hair has been removed, by hard rubbing with cod oil or other oil that is not a drying one like linseed. In a small way we tinker butter would be effective for this purpose. During the process of tawing, the skins should be well worked to make them pliable.

Perhaps some of our readers have other methods to suggest.

WANTS TO LEARN POULTRY BUSINESS.—Having been an interested reader of the RURAL WORLD, and especially the poultry part of it, I come to you for advice. I have always wanted to enter into the poultry business, and am now determined to do so; but before doing so I want to get practical experience by working on some poultry farm, thereby being fitted to go into the business right. Can you tell me of any place where I can find such a chance? I am young and strong, and can furnish best of reference and can do anything from hard work to keeping books. W. P. B. Livingston Co., Ky.

We will be glad to put our correspondent in communication with poultry fanciers who may want to give him a chance to get experience in exchange for his services. Mutual advantages should come from such a combination.

WILD ONIONS.—I would like very much some plan for destroying wild onions, as they are getting a start on my farm. I put the land in corn, but it did not kill them out. Stock of all kinds looks well. We have a mild winter, the thermometer not registering below ten degrees above. Hogs are very scarce. Farmers cannot find hogs to feed their 30-cent corn to. J. T. HISELL. Perry Co., Mo.

WASHINGTON CO., E. CENTRAL MO.—Wheat and meadows are looking badly. Stock of all kind is looking well. There is not much stock in the country, though there seems to be plenty of feed. Hay is 40 cents per hundred; corn, 40 cents; oats, 30 cents. I bought five four-year-old heifers that will drop calves from a thoroughbred Short-horn bull, paying for them \$30 per head. Two-year-olds are selling for \$15 to \$18; yearlings, \$12 to \$15. Recently I sold a dozen black pigs for \$4 per hundred. W. B. COMPTON.

CHARITON CO., NORTH MO.—We have had a mild winter here. Stock wintered well. Corn is worth 35c a bushel; hay \$1.50 a ton; hogs \$2.50 a hundred weight, more than they have been since 1894. Winter wheat looks well and grass is coming up.

JOHNSON CO., WEST MO.—This has been one of the most favorable seasons so far for wheat and grass since the record breaking year of 1893. We are having lots of rain and the ground is too wet for one seeding. Prospects for fruit of all kinds are excellent. H. W. ROOF.

The Dairy.

THE PALMYRA, MO., CREAMERY.

The "Marion County Herald" says the creamery payroll for February amounts to \$214.08. The number of patrons is 52. The basis of payment for that month was 20¢ cents for butter fat. February was a poor month, and butter prices were down. So far this month prices have been better, and if March holds out as it has begun, Mr. Rohrer will pay something over 21¢ cents for the month. For the past three months the creamery payroll has averaged over \$200, and these three months are probably the worst in the year. From now on cows will do better, and cream will soon be in demand, and this will make better prices all around.

E. L. Buckwalter's milk check pays for the milk from nine cows, but three of them give practically no milk so that in reality six cows average over \$6 a piece.

EDITORIAL SERIES OF INSTITUTES.

Spring Rural World: For the purpose of arousing interest in dairying the Brady-Meriden Creamery Co. of Kansas City announced a number of meetings in the western portion of Missouri. These meetings were addressed by several different dairymen and others, among whom were ex-Gov. W. A. Poynter of Nebraska, W. W. Marple of Kansas City, Prof. W. H. Phipps of Manhattan, Kan., P. D. Ashburn, former Dairy Commissioner of Ohio, and Doctor Waters of Columbus.

The remarkable evolution in dairy methods during the last quarter of a century has been unparalleled by any other department of agricultural industry. The "American system of associated dairying," which has been so phenomenally successful in some localities, has proven a disastrous failure in others. In seeking a cause or causes for failure it is seeking something without a clear understanding of it in all details and for want of "stick-to-it-iveness." But the co-operative methods have been greatly modified, simplified and cheapened. Instead of the "creamery" owned by the "patrons," who furnished the milk, where the butter was made by an employee or manager who divided the net profits of sales with the patrons after running expenses were paid, we have the "skimming station," at which the cream is separated (by machinery) and sold to some large factory located, it may be many miles distant. In this case the farmer runs little risk. He sells the cream at the market price and takes the skim milk back home for feeding calves or pigs. This method is gaining in favor. The Beatrice Creamery Co. of Nebraska manufactures butter from cream furnished by a number of stations, some of which are located over 100 miles away. In another state a central butter factory makes ten to twelve tons of butter per day from cream supplied by fifty skimming stations supported by 30,000 cows.

Dairy meetings were held at some 15 places, and one or more of the above named persons were present.

Besides the dairy meetings, a number of farmers' institutes were held in as many other localities. Increased interest is taken in these institutes, and in most of the places visited organization was perfected with the view of preparing for large meetings during the next fall series. The secretary of the Board of Agriculture, G. B. Ellis, very wisely suggests that we should not hold meetings near fall at any place unless assured of a good attendance. To insure success in every case it will be necessary to have proper organization and committees appointed. We shall probably visit some other points prior to the fall series to make such arrangements as will insure success.

G. W. WATERS.

THE COW END OF DAIRYING.

It is practically certain that no matter how intelligently, carefully, well the product of our dairy herds in milk, butter and cheese is managed, we shall fail to make the best of our opportunities in dairying if slipshod methods are practiced in the care of the cows, and in the preparation and provision of their food in order to produce the largest quantity of milk at a minimum of cost. We are fully persuaded that in the case of the great majority of dairy herds in this country the owners commit very far short of realizing the profit they might, firstly, from the lack of care and judgment in the breeding and selection of their cows, and, secondly, from mismanagement in the feeding and care of the cows.

The question of breeds and breeding is an important and interesting subject—one on which there is room for great difference of opinion, and which it is not our purpose to discuss in this article; but the matter of testing the cows to learn definitely whether they are paying their way decently or not is now so simple that there is little excuse for going on with our work blindly or with inglorious uncertainty, and if by testing we find that there are inferior producers in the herd consuming as much food as the superior producers, it is clearly in order to insist on their expulsion and the substitution of a more profitable machine as soon as practicable.

The apparent indifference of so large a proportion of dairy farmers to the quality of their cows is one of the surprises of

the business, and is, no doubt, one secret of the comparatively small returns they receive for the labor and feed expended on them. We know it is easier to moralize in this way and to give gratuitous advice as to getting rid of the unprofitable cows than to do it, but the present high prices for butchers' cattle would seem to make it a specially favorable time for feeding off the worst producers, and if the beef boom has that effect, it may prove a blessing in disguise to dairymen. It is one of the advantages of dairy farming that the idle and incompetent cows not in the end prove a total loss.—Exchange.

LAGRANGE, MO., CREAMERY.

Editor Palmyra, Mo., "Herald": Will endeavor to furnish you with brief information of our creamery as requested. Creamery is incorporated; cost of entire plant, \$4,950, built by a Chicago firm. This our only mistake of importance, as we soon afterward found we had paid entirely too much. Stock is owned by patrons and citizens of LaGrange. Think it best to have all stock owned by patrons, as they would take more interest in making it a success. Our creamery has been a success from the start. Territory small from which we get our milk supply, 750 on east and large wheat and corn farms south. Milk all furnished by bluff or upland farmers. With these surroundings we have made money from the start, paid stockholders a good interest, 6 and last two years 7 per cent dividend. Stock worth par. So you can see our success is not due to large milk supply, neither is it due to Board of Directors, but solely to Mr. Lewis who is better maker, secretary and treasurer. He understands his business and gives it close attention. Hence I think the success of your creamery will depend on your securing the right man for the place. Only those creameries that make first-class goods can succeed. We pay Mr. Lewis, in fact have done so from day we started, \$75 per month; one assistant, only help he has, \$28 per month. Milk bought by test of butter fat. Have always governed price to patrons by what product brings on the market. After deducting all expenses—i. e., labor, ice, coal, repairs, etc., etc.—also net profit for the month, the remainder is paid to patrons. Hence we have never made a specific price to patrons, but are governed entirely by market. We ship cream, whole milk and buttermilk and some butter, but as we make most for patrons by selling cream and whole milk, only make butter from milk not in condition to be used otherwise. Milk and cream for shipping require extra care.

The creamery has been of great benefit to farmers. We never hear any complaint from patrons. All are making money, hence are well satisfied. You have much better location than we, as good shipping favors. Can see no reason why you should not succeed if you secure the right man to operate your plant.

Would like to see "Poor old Missouri" come to the front on dairying. There is no reason why she should not. We have splendid grass and grain land and much shorter winter than some of the northern states that are making so much money dairying. Have written hurriedly, but tried to touch all points requested in your letter. Will be glad to furnish you further information if able to do so. Hope you will not hesitate to write me if you desire more information.

The following is amount of milk received and amount paid patrons by LaGrange creamery for three months:

	Pounds.	Cost.
October	146,696	\$1,300
November	138,117	1,250
December	123,200	1,150

A very nice sum to be distributed among the farmers and a great help to our town in a business way. Truly yours, LaGrange, Mo. A. BOZARTH.

CALF CHOLERA.

Calf cholera has spread very rapidly in this state, says Dr. A. T. Peters, D. V. S., Nebraska Experiment Station, and Nebraska State Veterinarian, and has caused very serious loss. In localities where it has not prevailed it is regarded as a new disease; yet it is one that comes with the dairy industry and is well known to the dairymen in the districts where dairying predominates. Investigations relative to this disease have been carried on to a great extent at this station. Not only have we taken up this line of work, but other investigators have been busy working on the same line, and they all conclude that the cause of the disease is a germ which enters the navel; and when the navel is kept clean and not allowed to become infected, this disease can be very easily cured.

Calf cholera chiefly attacks animals from one to four days old. It seems that after this age there is not much danger, yet we have had reports where it affected animals of the age of ten and twelve days. It also prevails to a large extent in ill-ventilated, badly drained stables, yet we have known it to occur in stables that were models of sanitation. It has also been shown by European investigators that this disease can be transmitted from one species to another.

The symptoms in the different species of animals are very much the same, and are well known to the cattlemen. The first indication in that species is loss of their appetite, and next will be observed a watery discharge from the anus. The animal appears restless, and has ineffectual straining to pass dung. They bellow and seem to be in distress. The excrements, which first seem to be somewhat curdled, later become of a yellowish color; then watery, and finally of a water color. After these continue they may be streaked with blood and mucous membranes. We also see particles of coagulated milk discharged. At the later stages, the excrements have a strong odor. The animals become very weak and grow rapidly weaker, and lie down. This may be accompanied with convulsions. The eyeballs become sunken, the hair rough, and the general indications of death appear. Death usually occurs from 12 to 24 hours after the symptoms are well marked, though some cases may run from two to three days, and I have seen some where medical aid has been kept for five days. The pulse is high and also the temperature.

TREATMENT.—As it is known that the animal becomes affected through the navel by some germ, therefore the prevention of this disease is the only sure method by which we can receive any aid. It has been demonstrated that the treatment, after the animals show symptoms of the same, was of little avail, and that the larger per cent of them died on account of the rapidity with which they begin to collapse. For this reason the best results obtained were in a thorough disinfection of stables, removing all litter that was possibly contaminated by the excrements of an animal so affected,

FAKE TESTS AND TESTIMONIALS ABOUT CREAM SEPARATORS.

There are always new people to be gulled with an old fake. Hence a word of caution is pertinent regarding the reputed separator "test" and "testimonial" advertisements now being published in some of the papers and put out in circulars.

As regularly as the malarial and sarsaparilla season comes around the would-be competitors of the De Laval machines like to flatter themselves by seeming to stand up alongside the De Laval machines and publish reports of their imaginary nearness in efficiency,—"According to means and measurements of their own creation and without much regard for truth and honesty."

Many of these so called "tests" are simply manufactured out of the whole cloth,—it being impossible to locate the places where made or the persons by whom made. Others of them are made by agents or employees or by intending buyers who are offered a big discount and an agency provided they will "try" a De Laval machine in apparent test, the conditions of which "test" are to be fixed by the concern in question and the "results" then certified to by the purchaser. Sometimes innocent parties are called in as "judges," to certify to skim-milk "tests," when they know no more of the manipulative use of a Babcock Tester than they do of a flying machine. Occasionally tests may be honest in a way but so conducted as to be altogether impractical and misleading in results shown.

All this applies equally to testimonials, though some of these are given in good faith—just as is the case with "dilution" separators and every other fake and nostrum ever perpetrated.

There isn't a man living sufficiently familiar with cream separators to pass competent judgment upon them who does not know that the patent protected "Alpha" disc system employed in the De Laval machines renders them unapproachable by anything else yet devised,—a fact to which thousands upon thousands of De Laval users may bear witness with their experience.

A "20th Century" De Laval Catalogue may be had for the asking.

The De Laval Separator Co.,

Randolph & Canal Sts., CHICAGO. 74 CORTLANDT STREET, NEW YORK. 577 Commissioners St., MONTREAL. 103 & 105 Mission St., SAN FRANCISCO. 248 McDermott Ave., WINNIPEG.

and washing the vagina and tail, or in other words the entire hind-end extremities, with a five per cent solution of zedon once a day for ten days prior to calving. Upon the arrival of the calf, the navel is immediately disinfected with a similar solution, and this must be continued until it is thoroughly healed. In case animals show symptoms of the disease, the navel must be thoroughly cleaned and a lukewarm water solution containing three per cent of this fluid is injected into the anus at least three times a day. The animal should be kept by a day. The animal should be given half an ounce of alcohol in either a linseed tea or a flour tea, every three hours, to stimulate the heart. To apply hot applications around the chest to avoid congestion, is also advisable. This is done by taking a piece of cloth saturating it with hot water and winding it around the chest walls, and covering this with a woolen blanket. This will stimulate the animal wonderfully. If these methods are carried out the greater number of the animals can be saved.

DAIRYING IN DENMARK.

The following is from a paper by A. M. Larsen of Kansas City, Mo., read at the late meeting of the Kansas Dairymen's Association:

In Denmark the farmer has been breeding his cows for the dairy for the last twenty years, and they have reached a high standard. They have a number of buyers' associations. These associations buy some of the best pedigreed bulls, paying from \$1,000 to \$2,000 each for such an animal to which they breed their best dairy cows, and special care is taken in rearing the calf intended for dairying and only the best are retained in the herd.

The Danish dairymen takes the best of care of his cows and feeds them liberally all the summer time. The cow is picketed with a rope or chain about twelve feet long and not allowed more space for grass at a time than she can eat up clean and in that way the farmer is enabled to pasture about double the number of cows that he would in allowing the cows to run loose over the field. Their cows are never allowed to remain outdoors in cold, rainy days in summer time, preferring to keep the cow in the barn the whole day without feed rather than allow her to stand out in the grass and shiver. They have very substantial barns, built of brick or stone, well lighted and ventilated.

Success of the dairy business depends more on the herd than on the other one point. Much, of course, depends on the feed and care, but the best of feed and care will not make a cow that only has a capacity of fifteen or twenty pounds of milk a day, a profitable cow.

The cows are tied up in the barn in the fall as soon as the grass gets short and the weather sets in, and do not get out of the barn again until the grass is long enough to be pastured, and often do not get out of the stall.

The barns are furnished with cement floor and ceiling and walls. The windows are at the top of the walls and are never

LICE ON CATTLE.

Those who write to us about this time of the year complaining that their cattle are lousy are doubtless unaware of the fact that there are two kinds of lice which infest cattle. They are divided into two separate families, viz., sucking lice and biting lice. Of the first named there are two varieties, viz., short nosed louse and long nosed louse. Of these two the short nosed louse is the larger and most difficult to destroy. It is to be found mainly about the neck and shoulders, which parts are often denuded of hair by the rubbing induced by the itchiness caused by the little pest. The long nosed louse is, however, the most familiar to cattle breeders. The body is about an eighth of an inch long and about a third of that in width. The head is long and slender without visible eyes. The one species of biting louse is very common upon cattle and is easily recognized and differentiated from the sucking louse, as it is red, while the other is blue. It is often called "the little red louse," but although it is more common than the sucking louse does not cause so much real damage as its blue relative. The biting louse has a pair of cutting and biting jaws and attacks the animal along the spine, hips, rump and sometimes the head and neck. Its body does not fill up with blood as does that of the sucking louse, but it leads to a great deal of discomfort where numerous. One notices the presence of lice about this time of the year and towards spring. The cattle rub themselves on posts and fences and often do so in such a vigorous manner as to scratch the skin, causing it to bleed and become bare of hair. Emaciation is then likely to follow, and if the cattle be not relieved the owner is a considerable loser from his feeding operations.

When any of the above symptoms are observed the cattle should be examined for lice and it is best done after they have stood in the sun for a time, as the louse comes toward the surface when warm. If it is found, the building occupied by the cattle should be vacated, then thoroughly cleaned and whitewashed, adding a quarter of a pound of chloride of lime to each bucket of lime wash. The cattle should not be returned to the building before they have been vigorously treated for lice with one of the usual remedies. The Bureau of Animal Industry advises the use of a decoction of fish berries (Cocculus Indicus). Take half a pound of the berries for each animal, pound fine, then add two quarts of vinegar and set on the stove to simmer for an hour. Apply this thoroughly by rubbing it into the hair of the affected parts. This will not injure the skin or sicken the animals and is said to remain long enough to kill all the young lice as they hatch out of the "nits."—Farmer's Review.

A MISSOURI DAIRYMAN'S SUCCESS.

It seems to be the vague report to report progress when a dairy farmer believes he has done particularly well, and I take pleasure in stating, briefly, what I have done in this line. I have been in the dairy business for over twenty years, and with two cows, an old ribby nag, and an open wagon, I entered the ranks of the profession of dairying. I have always sold milk in bottles in the city, at a price of 6¢ cents per quart. I have been high, but my expenses have been much higher, living within one-half mile of a city of 60,000, than if I were located way out in the country. Last year I milked an average of 12 cows. They averaged 18.4 pounds per day for the whole year. They were mostly grade Jerseys. Two are thoroughbreds. I sold \$2,100 worth of milk and cream during the year, and sold bulk calves to the amount of \$200. I have kept all my heifer calves so far, good, bad and indifferent. I now have 19 head of milk cows, seven heifers and a blooded Jersey bull. Last season I raised corn, oats and hay, which is supplemented with wheat bran, cotton seed meal and linseed meal, purchased in the city.

The average daily ration costs about 14 cents, during the six months of full feed—during the winter months about half this amount. Hard work, keeping everlastingly at it, good management, keeping expenses down to a minimum and getting highest market price for the product, has enabled me to make a comparatively good thing of the dairy business—and then I have my health.—H. A. Bertram in "Hoard's Dairyman," St. Louis County, Mo.

IN CALDWELL COUNTY there are no less than a dozen cheese factories and a majority of its farmers are engaged in dairying. D. R. Kemble, who lives at Klidder in that county, recently told us that the banks in Hamilton, the largest town in the county, were complaining that they could not lend their money. The bankers said that whenever the farmers wanted to purchase new machinery or more land they simply drew a check on their balance at the bank. They claimed that very few farmers ever applied for loans.—Marion Co., Mo., Herald.

Denmark imported from the United States in 1899 11,000,000 pounds of feed, consisting of small grain, corn, oil meal and cottonseed meal, besides a great amount from other countries. This system has increased the fertility of the soil and has entirely revolutionized the agriculture of the country.

Denmark alone exports to England about 100,000,000 pounds of butter annually. For it the Danish farmers receive about \$2,500,000 a month.

The co-operative system in Denmark has benefited the farmers in more than one way. They have been the means of educating the farmer in addition to augmenting his income. The common interest which they had in the creamery consultations, resulting in better methods and the propagation of new ideas and associations.

Besides the breeders' association, which consists of local organizations organizing into a central association that buys the feed direct from foreign countries and the farmer does not have to pay half a dozen dealers a profit for hauling it.

The Danish farmer has organized his own bank and has organized and built the Danish branch of the post office.

The Danish farmer has also increased the fertility of the soil and has aided in accomplishing a great many things that would otherwise not have been.

MANURIAL VALUE OF EXCRETA.

(1) The feces from milk cows contain about one-third of the nitrogen, three-fourths of the phosphoric acid and one-sixth of the potash of the food.

(2) The urine contains one-half of the nitrogen, almost no phosphoric acid and three-fourths of the potash of the food.

(3) The milk contains less than one-sixth of the nitrogen, one-fourth of the phosphoric acid and one-tenth of the potash; or less than one-sixth of the manurial value of the food.

(4) When the urine is allowed to run to waste more than one-half of the manurial value of the food, or 63 per cent of the manurial value of the solid and liquid manure, is lost.

Bulletin No. 54, Penn. State College.

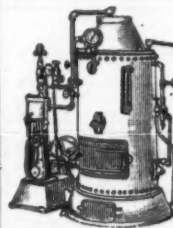
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JEWETT
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THE old-fashioned paint that never chalked, cracked nor peeled was made from Pure "old Dutch process" White Lead mixed with Pure Linseed Oil, and thoroughly brushed out, using plenty of elbow grease to rub the paint in, and allowing ample time for it to dry between coats.

The brands named in the margin are genuine. Any shade or color required may be easily obtained by using the National Lead Company's Pure White Lead Tinting Colors.

Pamphlet giving full information and showing samples of shades, etc., etc., furnished free upon application.

National Lead Co., 100 William Street, New York.



POWER

For pumping water, grinding feed, running separators, churning and a hundred other uses, is needed by every farmer. This RIG does the work, the best and cheapest. Price and description and our boiler and engine catalogue free.

CREAMERY PACKAGE MFG. CO., 815 NORTH SIXTH ST., ST. LOUIS, MO. Dairy Supplies, Boilers and Engines, Feed Cookers, Etc.

The BUTTER SCORING the HIGHEST 98 POINTS

At the National Creamery Buttermakers' Convention, St. Paul, Minn., Feb. 18 to 23, 1901

Was the Product of the U. S. Separator

This butter was made by Edw. H. Webster, Ames, Ia., and scored one point higher than the butter entered by Mr. Quenbold, which received a Gold Medal.

Mr. Webster's butter was entered for scoring only, therefore could not compete for the prizes, which explains why the Medal was given to the butter scoring second highest and not to the butter that was really the best.

Our "would-be competitor" claims to have had 35 times as many entries at the Convention as the United States, and for all the latter had so few chances, in comparison, of winning yet the Judges reported the U. S. product the Best out of 829 packages, another proof of the

SUPERIORITY OF THE IMPROVED U. S. SEPARATOR

We also call attention to the GOLD MEDAL IN THE GATHERED CREAM CLASS which was awarded W. C. Noble, So. Waterford, Me., whose butter was the Product of Improved U. S. Separators and Cooley Creamers.

Remember we are Pioneers in the Cream Gathering System and lead in that the same as in everything else in the Dairy and Creamery line.

When you see our "would-be competitor" claiming everything at the Convention, just bear the above facts in mind, also that

THE BUTTER SCORING THE LOWEST, 75 1/2 POINTS, WAS THE PRODUCT OF THE DE LAVAL SEPARATOR.

Write for Circulars telling of many other victories of the U. S. VERMONT FARM MACHINE CO. BELLows FALLS, VT.

OUR ADVANCE AGENT \$10.50

Double Board Hardened Steel Plow, hard as glass all over. The best plow on earth at any price. 14 in. 9.50. We have other 16-inch plows for \$10.00. Guaranteed to scour or money refunded. Send for Free Catalogue of Reapings, 6 1/2 Lever Harrows, 8 1/2 in. Steel Harrows with high closed ends, 12 in. Disc Harrows, 10 in. Sinks and Gang Plows, 10 1/2 in. 1890 other things. All bargains. Write now and get ready for spring work. HAPGOOD PLOW CO., Box 49, Altam, Ill. \$1.50 extra. The only plow factory in the U.S. selling direct to the farmer.

Burlington Route GREAT TRAINS

No. 41. "BURLINGTON-NORTHERN PACIFIC EXPRESS" to Kansas City, St. Joseph, Portland, Puget Sound, Northwest, via Billings, Montana. 9.00 A.M. DAILY.

No. 5. "NEBRASKA-COLORADO EXPRESS," one night to Denver, for Colorado, Utah, Pacific Coast. Also for St. Paul and Minneapolis. 2.05 P.M. DAILY.

No. 15. FOR KANSAS CITY, ST. JOSEPH, Denver, Omaha, Nebraska, Council Bluffs, Colorado, Pacific Coast. 9.00 P.M. DAILY.

City Ticket Office, Southwest Corner Broadway and Olive Street. HOWARD ELLIOTT, J. G. DELAPLAINE, L. W. WAKLEY, General Manager. City Passenger Agent. Gen'l Passenger Agt.

Spring Cleaning

You are made aware of the necessity for cleansing your blood in the spring by humors, eruptions and other outward signs of impurity.

Or that dull headache, bilious, nervous condition and that tired feeling are due to the same cause—weak, thin, impure, tired blood.

America's Greatest Spring Medicine is Hood's Sarsaparilla.

It makes the blood rich and pure, cures scrofula and salt rheum, gives a clear, healthy complexion, good appetite, sweet sleep, sound health.

For cleansing the blood the best medicine money can buy is

Hood's Sarsaparilla
It is Peculiar to Itself.

We Can't Give Away Anything

You pay for what you get in this world. You understand that. But as a business proposition we want you to try our great medicine for Indigestion, Constipation, Biliousness, Sick Headache, Insomnia, "the Blues," and like complaints—

Laxative NERVO-VITAL Tablets

We know you won't buy it, until you know something about it. The best way to get you to know how good it is, is to let you try it. That's what we do. Send Stamp for "Health" booklet, and we will send you a free sample package, that you may try it yourself. We know you will always keep it in the house, if you once try it. What fairer offer could we make? At all Drugists—10 and 25 cents.

Handsome FREE! Stick Pin

If, instead of sending for a sample, you send us 25¢ we will send you "Health" booklet, a 25¢ box and a handsome gold stick pin, set with emerald, ruby or pearl, warranted to be worth double the money. Order by number. This is an extra introductory offer. Only one pin to one person. If unsatisfactory, money returned. Send now while the offer is good.

MODERN REMEDY COMPANY, KEWANEE, ILLINOIS.

[This company will do exactly as it promises.—Editors.]

There are on this place and for sale nine young bulls ready for service. Mr. Switney is a business man as is shown by his advertisement in the good old RURAL WORLD, of which he has been a student.

EDWIN.

CATTLE IMPORTS AND EXPORTS.—Importations of Mexican cattle into the United States in February were 6,103 head, 500 less than in January, but six times as large as in February of last year and nearly three times those of Feb.

cipal markets last week were 101,000 cattle, 257,100 hogs and 113,000 sheep. On the previous week 101,900 cattle, 265,800 hogs and 101,900 sheep were received. A year ago 99,700 cattle, 283,800 hogs and 107,040

SHEEP.—Receipts have been moderate, and the market ruled steady to shade higher through the week. We quote the following prices: Best sheep, \$4.50 to \$5; best lambs \$5.25 to \$5.50; best yearlings,

SHEEP.—Receipts moderate; prices steady. The leading feature of Saturday's market was the sale of 60 head of choice 297-pound hogs, which brought \$6.15. These hogs were fed in Boone County, sold by Evans-Snider-Buel Co. and bought by the

T. F. B. SOTHAM,
COLS. WOODS, EDMONDSON and SPARKS,
AUCTIONEERS. CHILLICOTHE, MO.

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